

CREATURE
DeZine

Some thoughts, tips and tricks on creature design

Hi there ! I'm Graphi, and I've been drawing creatures for as long as I can remember. Over the years, I've had some thoughts on the subject of creature design, and decided to organize them a bit.

The advice in here is focused mostly on my own style of creature design ; fantasy, with speculative biology elements.

It's also only about animals, because as much fun as plants and fungi are to work with, I have less experience with them.

In any case, hopefully you find it helpful !



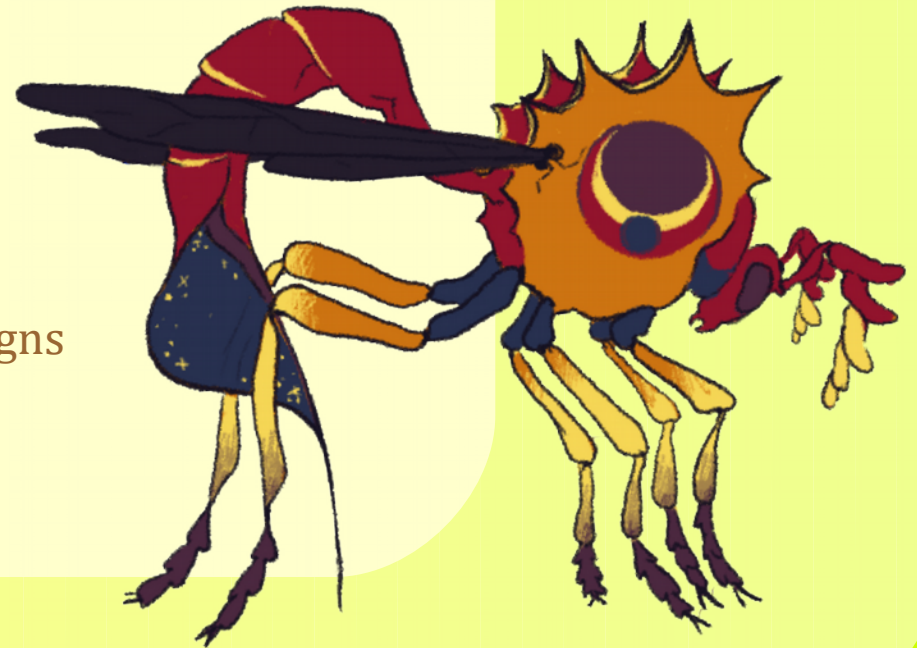
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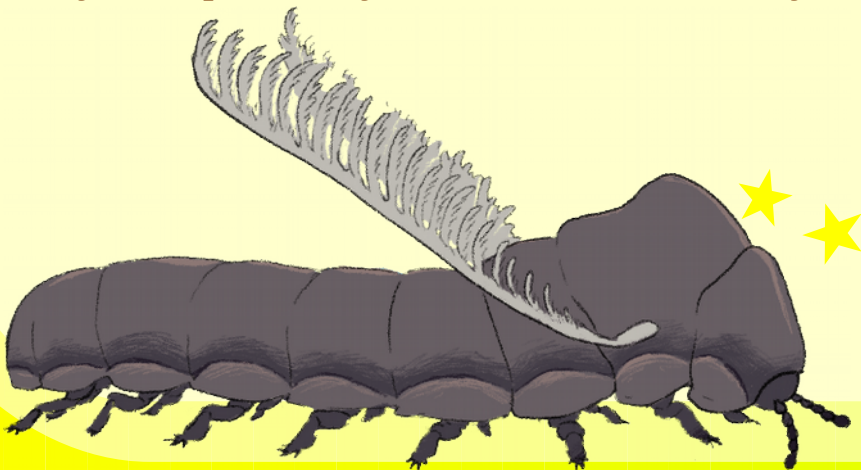
Part 1 : Theory and philosophy of creature design

Knowledge of real animals

I want to start this whole thing with a point I will keep stressing throughout ; you simply can not be any good at creature design if you don't have any knowledge of real animals.

It's important that you take this to heart, and take the time to study their anatomy, behavior, and lives. Without any love for the critters that fill our world, your designs will be generic and shallow.

And when I say animals, I mean ALL animals. If you still act grossed out by arthropods, now's the time to stop that. That, and every other negative assumption you have about any group of animals, unlearn it, learn to love them even a little bit. You'll be a better artist for it, and you'll probably discover some really fun, weird animals along the way !



Making « more original » designs ?



Now, we have all heard that « there is no such thing as an original idea anymore ». It's true to an extent, and it's important to remember that you don't have to strive for originality as the mark of a good design.

It's especially true about creatures, as anything you make up probably exists on earth already. Seriously, there's some proper weirdos out there, it's awesome.

However... There are a lot of things that haven't been done in creature *design*, especially when you take inspiration from those proper real weirdos. If you take inspiration from some nice soil arthropods, or maybe a deep-sea creature or two, you're guaranteed to make a design that's « more original » than something based on animals everyone already knows about. Just have fun, experiment, and don't be discouraged if your creature looks like something that already exists.

Research – Animals around you

As I've just mentioned, real animals will be an endless source of inspiration to pull from. Lucky for us, animals are not very hard to find and observe in our lives.

Going for a walk wherever you know there'll be animals (dog parks, zoos, farms, the woods... etc) and bringing along a sketchbook to draw from life is a nice exercise. Even if you don't draw much, observing animals in motion, their behaviors and attitudes will get you lots of insights. Watch closely, for even the little ones are full of personality. Insects spend time meticulously cleaning themselves, tiny birds bicker over their territory, the bathroom spider moves carefully around the sink to avoid getting wet. All that to say, don't be discouraged if all you have around yourself directly are « common » or « boring » species. There's a lot to any critter out there !

Finding animals might be a little tricky at first (especially wild ones!) but fear not, there's tricks to it.

For birds and mammals, try heading out early in the morning or right at nightfall. Listen out for them.

For flying bugs, try meadows or gardens, generally places with lots of varied plant species. Don't be scared of the stinging ones, they're busy eating and don't care about you.

For crawling bugs or amphibians, look close to the ground. Lift a log or a rock and you may find cool stuff ! Just be sure to gently place it back down afterwards.

For reptiles, look in sunny places with little foot traffic. They love heat, but are sensitive to vibrations in the ground and may flee.

Always be respectful and never do anything that may hurt or disturb the animals, though !

Some mundane yet cool finds

These are some examples of animals I found near me (directly in the town where I live, no trips needed).



My bathroom spider last year was an ant mimic spider



Legless lizards that was straight up in the middle of the path



Under a log, a weevil with super cool bark camouflage

Research – Multimedia

Once you find yourself wanting more than what you're able to find on your own outside, you may turn to books or online sources to get more inspiration, or maybe to learn anatomy more thoroughly. Excellent ! There is a wealth of information out there. When it comes to reading material, Wikipedia is a good starting point in general, but often lacks detail. If you want to get into books, I recommend a blend of more general books, and ones about more specific subjects (A general book about insects to learn the groups, and a book specifically about flies to get deep into their ecology and see the cool species in the group, for example). You can find older encyclopedias for cheap at yard sales, but be critical of the information in older books, as things get quickly outdated in science. They're a good way to have lots of reference images, though !

Having access to videos is a really valuable resource, too. Seek out slow motion videos especially to really understand how the movements work. Nature documentaries can be easily found just on YouTube nowadays, and they're absolutely amazing. But be careful, content farms or straight up AI channels make a lot of videos on animals which will have misinformation. You can check if the description has sources, or how old the channel is to check if it is reliable. To learn about your local ecology, I find iNaturalist to be a fun approach that lets you look up what has been observed in your area (or wherever). You may find out there's some really surprising species in a given area, which is great for rethinking what you'd assume a given ecosystem houses.

Research – Starter ideas

With the millions of animals that exist, it can feel a little daunting to dive into it. Here are some ideas of things to research to get you started !

The small

Very small creatures can have surprising shapes, diversity, and complex lives. There's even microscopic animals you can't see with the naked eye !

Suggested : [Chaos of Delight](#)

It's no mystery that the deep sea holds some wonderful bizarre animals for us to look at and wonder about.

Suggested : [EV Nautilus videos](#)

The aquatic

The ancient

There's endless types of creatures alive right now, but even more so when you look at the ones who are now part of the fossil record.

Suggested : [List of Cambrian animals](#) | [PBS Eons](#)

Go out and explore ! If you can, encourage the local fauna to come to you by planting native plants or leaving a little water where you can observe from afar. Please avoid leaving food out, though, it might get eaten by something that can't digest it properly.

The local

Research – What to avoid

When it comes to online research, I'd advise to be wary of using « internet darling » animals as inspiration.

Though popular animals are so because they are cool and unique, this can lead to many people using them as surface-level inspiration without doing any research into the animal, leading to shallow designs (for example, the orchid mantis, which a lot of people forgot only looks like its most popular form as a juvenile). There's nothing wrong with taking inspiration from what you've been seeing, but be careful of jumping on trends.

Using the latest meme will not only make your design dated once the popularity fades, but many animal memes depict unsafe, abusive situations, which is something we all have to be careful not to share around as a funny cute thing.

Similarly, it's important to fact-check and be careful of preconceived notions. When it comes to animals and ecology in general, we all learn things from word or mouth that are pretty widely believed but not true, so it's good to ask yourself once in a while : « Where did I learn this fact ? Is it true ?

Is it a myth ? » and then go check. It's good to look at multiple sources, or, if you can, ask someone who knows a lot about the subject (an actual expert, ideally, so you don't just get a new word of mouth myth in your head).

There's no shame in not knowing something or making a mistake, we all do, but it's important to be open to learning and not dig your heels in when confronted.



Resources (all free!)

My favorite way to search for animal pictures on the internet is using [iNaturalist's identify page](#) with a random filter. You need an account to access it, but it's free to make. You can play with the filters to search only mollusks or only species in Asia, for example. Very fun way to get inspired. The [Animal Photo Art Reference Search](#) is a popular tool to quickly look up various angles to help draw vertebrate anatomy.

This [Atlas of Insect Morphology](#) is what it says on the tin. Great to see all the details clearly, as it's full of diagrams.

This [Repository](#) of exotic animal photography has been built specifically with artistic referencing in mind.

[Featherbase](#) is great for understanding how individual feathers look, which will help when drawing winged creatures.

The [Parasite of the Day](#) blog is a great resource to find out about lesser-known parasites and their fascinating lifecycles even when you don't know where to start.

The [Ant Lab](#) channel has many slow-mo videos of insects in flight.

Another [Atlas](#), this time mammals.

Line of Action's [Animal Drawing](#) tab lets you practice quick sketching easily.

Mostly mammals, but some others too.

The [Virtual Collection](#) of the Digital Atlas of Ancient Life has a lot of 3D models of fossils, from diverse phyla.

The San Diego Zoo [Live Cams](#) can get you a nice look at some exotic animals in movement. Why not start a life drawing session from the comfort of your home with one of these ? (Other zoos do this too if you're in need of more material, this one's just an example.)

Part 2 : Actual design and art advice

Finding your concept

If you're just starting out creature design, it's good to ask yourself « why am I doing this ? », as in what are the designs for. Are these for an action-adventure comic or a speculative biology work ? Does the design need to work within a narrative or is it just for fun ?

Once you have a bit more of an idea of where you're going, you can truly start thinking of various concepts for creatures.

Mix and match various animals parts, exaggerate one aspect of an existing animal, imagine « what-if » scenarios, bring in non-organic concepts (robotic creatures ! Creatures made of rocks!)... Etc. Don't hesitate to make it weird.

My best trick to quickly get some concepts flowing is identifying a niche (the habitat and behavior an animal has, basically) that exists in real life, and giving it to a group that hasn't (or rarely has) evolved to fill it. For example, I took the niche of leeches (aquatic bloodsuckers) and gave it to a group of slugs.

Once you've been at it for a while and have a few creatures, it can be nice to fill out your roster by giving them relatives, or creating groups that are « in-between » some of the others. Just having two or three creatures in one group helps imply the existence of more, which can help create depth in your lore/worldbuilding. Having this simplified « evolutionary history » makes them easily recognizable as part of the same universe too.

Finding your concept - Examples



For this one, it's based on an earwig, but it's been given a predator niche, with raptorial legs like mantids.



This is a case of filling out a group. The first creature is one I designed years ago, and the second is more recent.

Finding your concept

– On mixing animal parts together

Of course, when it comes to creature design, we can all think of the classic chimera, or griffin, or minotaur. These all have in common the fact that they take parts of different animals and stick them together into one creature. While these have their charm and appeal, a design done like this can look like rogue taxidermy more than anything. If your design's goal isn't particularly to bring to mind the animals that inspired it, try and avoid this. Instead of just taking, say, an antelope's body and a flamingo's head and sticking them together, consider what's appealing to you in the animals you chose. You like the antelope's ability for speed, and the flamingo's feeding strategy seems fun to work with, maybe. Try and find the « base concept » in whatever animal part you're using, to find out how to apply it in the design.



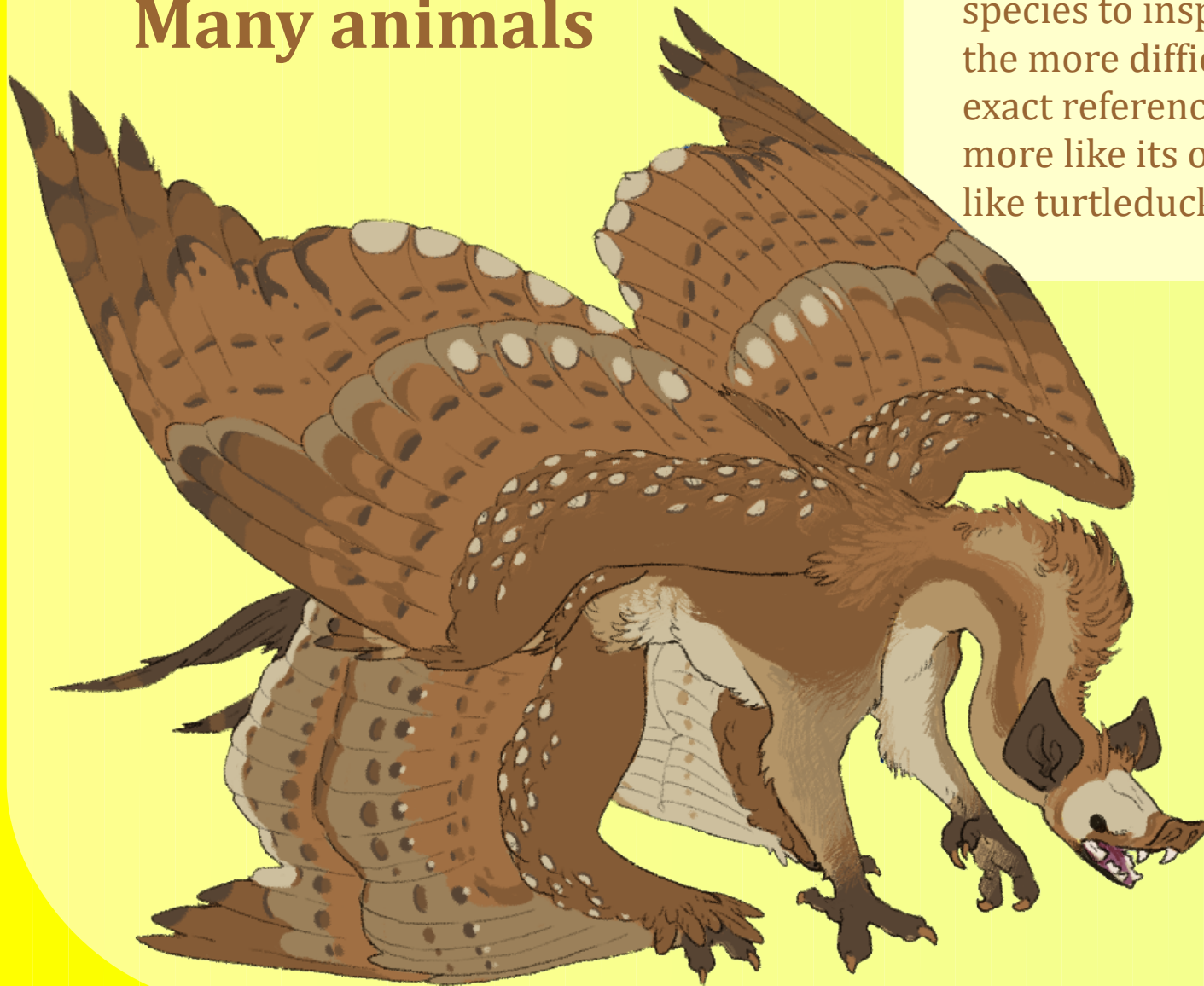
On mixing animal parts together

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Many animals

When making a design, you shouldn't hesitate to have lots and lots of different species to inspire you. The more you add, the more difficult it'll be to pinpoint your exact references and the end result will feel more like its own thing. Unless you really like turtleduck-type animals, which is fair.

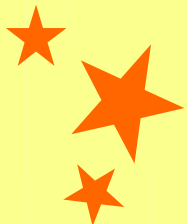
Here's an example ; for this desert scavenger, I picked a little from hawks, hyenas, parrots, pigs, and vultures. If you look close, you can see it (the pig nose, the parrot feet) but they're not immediately obvious.



Iterating

Having a design turn out perfect on the first try is not something you should expect, especially when you first start out. This shouldn't discourage you ; it's good to try out lots of things before choosing one, so you know you haven't left any options behind. If you're unsure about a design, you can try « giving it time to cook » ; leaving it for a few days or even longer without looking at it, so you can look at it with fresh eyes next time. This'll help you see potential flaws or things to change.

If you already draw regularly, you probably have a sketchbook. Very good ; now you have a space to experiment a bunch of creature designs without spending hours on each. It can even be good to have a specific sketchbook just for creature design. Try out every crazy idea that comes to your mind until something sticks, and go from there. This is a trick that works for art in general, but in an effort not to get stuck in a loop of erasing and re-drawing, try drawing with a pen or a marker. This will make your drawing more intentional, so you'll think more about your creature before committing it to paper.

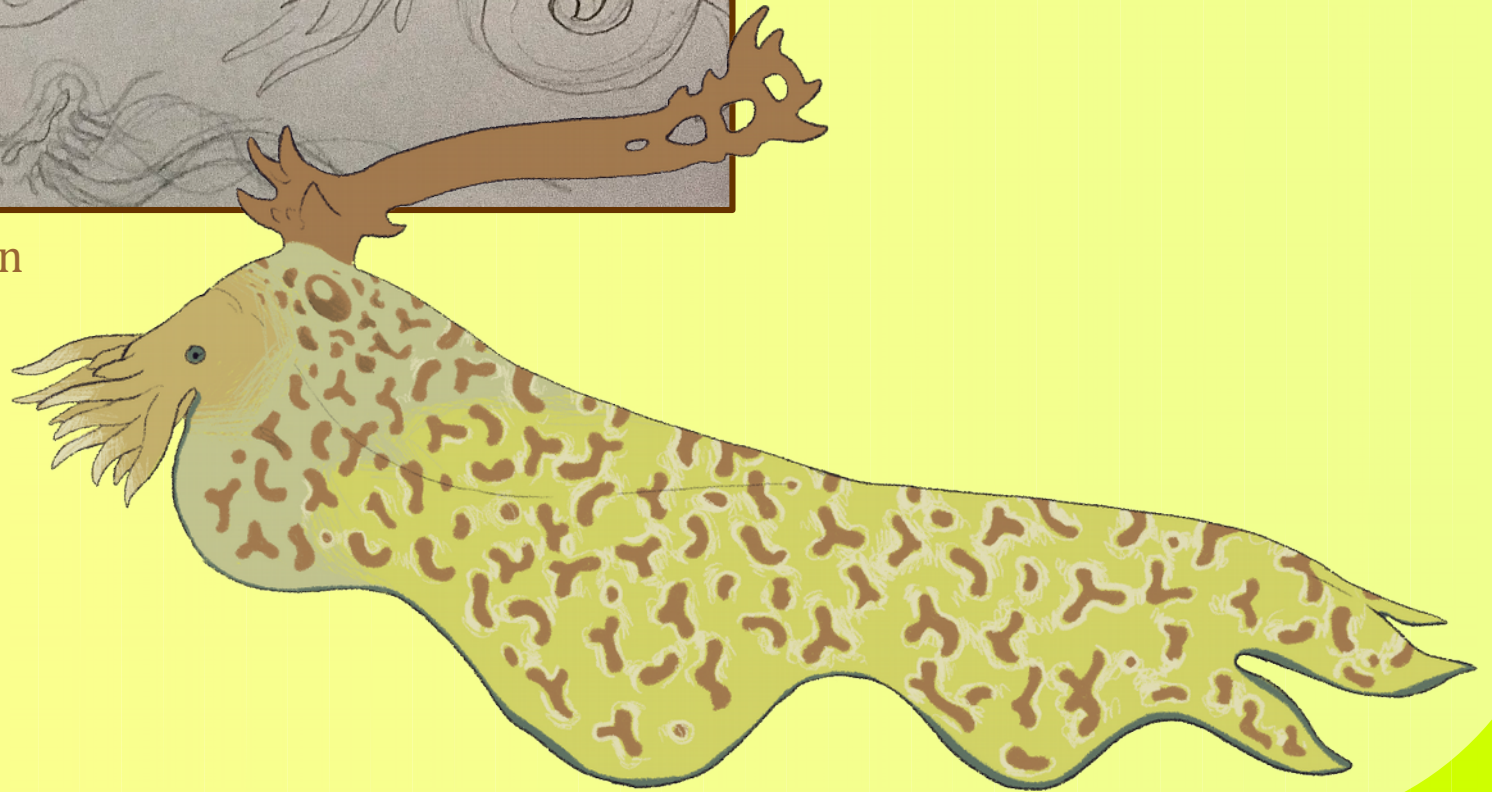


Also, make thumbnails (aka very small, simple drawings) when testing things out. Drawing small will force you to forego the details and focus on your general idea. When you have an idea, but don't really know how to execute it, that's the ideal time to make ten super small sketches, then take your favorite(s), redraw them bigger, and so on and so forth.



Here's an example ; I made a bunch of test doodles in a sketchbook page, not taking more than 2 or 3 minutes on each.

Then I took the design I liked the most and drew it bigger, more detailed, and with colors !



Iterating - Moodboards

When you're making a creature design and are still in the iterating phase, that's when you're probably going to turn to pretty pictures for information. Which is a good thing ! But it can be easy, especially when researching on the internet, to get distracted.

Here are some tips and tricks.

- Setting a timer. Give yourself 10 minutes to get your pictures, then turn off the wifi and draw without allowing yourself to search for more.
- Bookworm mode. Go to the library and draw there using whatever books they have as your only allowed source of inspiration.
- Unplug your mouse/draw a meter away from your computer. Take your sketchbook, scoot away, you can have your references on screen but you're less tempted to go scroll for more now.

Being alone with your thoughts and the design you're making is better to be able to really think about the decisions you're making, so avoiding distractions is key to getting good results. I'd advise to even avoid things like podcasts or audiobooks in the background in the initial design phase, so your brain isn't going in different directions.

Your own art can also be part of your moodboard ! You should revisit old sketchbooks and abandoned WIPs once in a while to see if any old ideas are worth trying again.

General anatomy – Real animal anatomy

But if learning the anatomy of real animals is so important, how is it done ? Just like anything else, drawing animals a bajillion times is the solution. Of course, you need to stay mindful of how you're going about it. Just drawing mindlessly will get you somewhere, but not particularly fast. It's good to have a precise goal in mind (more precise than « get better at drawing animals ») when you're doing study-type drawings.

I recommend having a blend of :

1) Gesture and observation drawings ; this is your typical figure drawing. Make lots of drawings quickly, focusing on the general shape and movement, ignoring details and just drawing what's essential. It's good to do timed exercises for this, and get the whole body on the page within the given time no matter what. Drawing from real life is best for this, but photos and videos are really nice too and can be done more often.

Doing these will improve *poses, composition, and drawing speed*.

2) Anatomy studies ; diving deep into the inner workings of animals. This is where you really research the muscles, bones, all that anatomy. Focus on getting the proportions right ; don't hesitate to measure things a lot. Get the details as accurate as you can. For this, you should look at anatomy textbooks, museum skeletons, and even dissection videos if you can stomach them. Understand what's beneath the surface, see in detail just how things work.

Doing these will improve *realism*, and help you have *correct proportions*.

Real animal anatomy - Exercises

Here are some exercise ideas to learn anatomy. They're just examples, you should make up your own exercises that fit the way you work and what you want to achieve, too. Having strong goals and discipline will make for some fast improvement !

Exercise idea :

Gesture drawing session, focus on overall shape, draw the whole body
5 sketches, 30 seconds each
5 sketches, 1 minute each
2 sketches, 5 minutes each
1 sketch, 15 minute

Exercise idea :

Choose one body part (head, leg, eye...)
Draw it at 5 different angles

Exercise idea :

Look at the animal for 5 entire minutes.
Then draw it, without looking at it again until you're finished.



One of my own sheets of study doodles. The six on the left are quick gesture studies (30 seconds and 1 minute) and the two on the right are longer sketches (10 minutes). All my scrap paper ends up used like this ; it's a good way to recycle paper and save the pretty fancy sketchbooks for more finished stuff.

Real animal anatomy - Observation

It's super important to have good *observation* skills, too. Even when you're not actively making art, your brain is working, and taking mental notes on the animals you see and looking at them in detail will make a major difference once you're putting pen to paper again.

This can be both looking at anatomy itself-observing how a bird folds its wings, how a spider leg is articulated, etc- or also observing behaviors, which is useful when it comes to the creature design part. After a while, you get good at guessing something's lifestyle because of its appearance (a bug with leg spikes to dig, a bird with a big beak to eat seeds), and that will translate directly to good creature design skills.

It's also a good idea to write down your observations as you make them. It will help you remember this stuff better instead of re-discovering it every time you see it, and once something is well and truly remembered in your long-term memory you have more « mental space » for newer observations and information. You can have a dedicated notebook, your phone or computer, sticky notes... But make those notes somewhere you'll look over them again, because just losing them immediately after writing them means you won't remember them as well.

You can try talking about your observations with someone too, that's a pretty effective way of making things stick in your memory. And with a little luck, the person you discuss this stuff with will have cool creature facts to tell you in return !

General anatomy – Thinking in 3D

You've heard this before, right ? Even if you draw in 2D, you have to think in 3D ; that is to say, to think of the volumes and depth of what you're drawing.

Thinking of your creatures as a series of basic 3D volumes (cubes, spheres, cylinders...) can help conceptualize that volume, especially if you draw them as guidelines.

Trying to draw difficult angles instead of just a side or front view will definitely help you remember this, and even if they seem daunting at first, I think it's worthwhile to throw yourself into the deep end and not shy away from, say, a difficult reference photo. Try and take notes on it before drawing, understand the underlying structure.

My cheat trick, though ? ...Think in 3D, but literally. Get some cheap air dry clay or something, and make a sculpture of an animal. Or use a 3D software if you prefer, but I like arts and crafts.

Don't just do one, though. Do it once in a while. This will force you to think in volumes instead of in flat shapes, and once you go back to drawing, it will be easier to think back to when you made your sculptures.

You can even use them as a direct reference that you can move around at your leisure. It's always good to add one more thing in your skillset, and hey, you can use them to decorate too.

General anatomy – Thinking in 3D



Paper crafts



Air-dry clay

Behold the creatures in the third dimension

General anatomy – Knowing what you're drawing

When drawing an animal, it's important that you have at least a basic understanding of what parts are for what, how they move, how they interact with the rest of the body. Having this extra knowledge is crucial to giving your drawing more depth, you'll know what it entails when you push or forego certain details. It becomes essential for the design part too, so when you take inspiration from an animal, you know what all the little bits are for.



My nutria skull. They're invasive where I live, so keeping their remains is legal.

In order to do this, you could start with videos of the animal in movement, scientific diagrams, etc. But in my opinion, this is where the earlier point about observation skills becomes really useful ; take some time to look at real animals and take notes. And if you have the time and space for it, you should start your own small collection. Study skeletons, get a skull or two of your own. Try to pose and pin some bugs, it's great to interact with the wing articulations in detail like that. Dissect a barnacle in your basement like Darwin if you feel like it, honestly. Just be careful and source your specimens ethically if you decide to go down this route (some species are illegal to own remains of, or if you buy stuff sellers can have shady sources). I usually go the route of grabbing already dead stuff from outside.

General anatomy – Exaggerating individual features

Now, once you have a good grasp on the anatomy of real animals, it becomes pretty easy to guesswork your way around a fantasy animal's workings. You understand how things work, but most importantly, why they are the way they are ! Let's say you've studied vertebrate limbs thoroughly. You know how to draw really good legs like they'd appear on a real animal, but also you can think of ways to modify them into something totally alien-looking, while still theoretically working and fulfilling its purpose as a leg.



Once you understand what a part of an animal is « for », you can play with it, stretch it, reduce it, multiply it, etc.

Examples : above, this arachnid animal has large pedipalps with long « whiskers ». This is inspired by real spiders' leg hairs being a sensory organ already, but just a bit different.

On the left, this slug's long nose is actually its mouth, with its radula (a gastropod's « tongue » covered in thousands of tiny teeth) at the end adapted into a slicing claw! This is because instead of eating what's underneath itself, it reaches out and slices its prey before sucking up the blood from the wound, like a vampire bat (or... like real-life blood eating snails. Turns out my concept had already been done by nature itself. This will happen to you too, it's no big deal).



General anatomy – Adaptation



When it comes to making decisions regarding the anatomy of your creature, consider its lifestyle and environment.

Here's a quick checklist of things you can decide about your creature which will help you flesh it out, along with examples.

- Habitat (forest, meadow, ocean, swamp, desert, mountain, cave, river...)
- Time of activity (nocturnal, diurnal, crepuscular, periodical...)
- Communication (sounds, smells, mating rituals, fights over territory...)
- Relationships (symbionts, hosts, preys, predators, food sources...)
- Is it magical/supernatural ? (can it use or react to magic ?)

- Diet (grazer, omnivore, nectarivore, piscivore, frugivore, detritivore...)
- Life cycle (eggs, hibernation, migration, lifespan, growth...)
- Social life (solitary, gregarious, does it raise its young...)
- Does it construct things/use tools ? (bird nests, spider webs, crows with sticks...)
- You can choose an « iconic feature » to make it stand out.

Depending on how specific you go when picking from these, you could choose to make your creature a generalist (adapted to lots of things) or a specialist (adapted to very specific circumstances). There's often a mix of both in an ecosystem ! More extreme biomes will have more specialist species (extremophiles).

General anatomy – Adaptation

Once you know what your creature does and how it lives, you can research real animals that live in a similar environment or have the same diet and see what adaptations they have for their lifestyle. If you're making something that has no direct real-life parallel, find the closest matches and stretch what they have to fit your design needs.

You can also think about *how* it got its traits with evolution in mind, which can make for a unique and thoughtful design. It also makes for some fun lore, if the creature's appearance can subtly suggest some of the world's history !

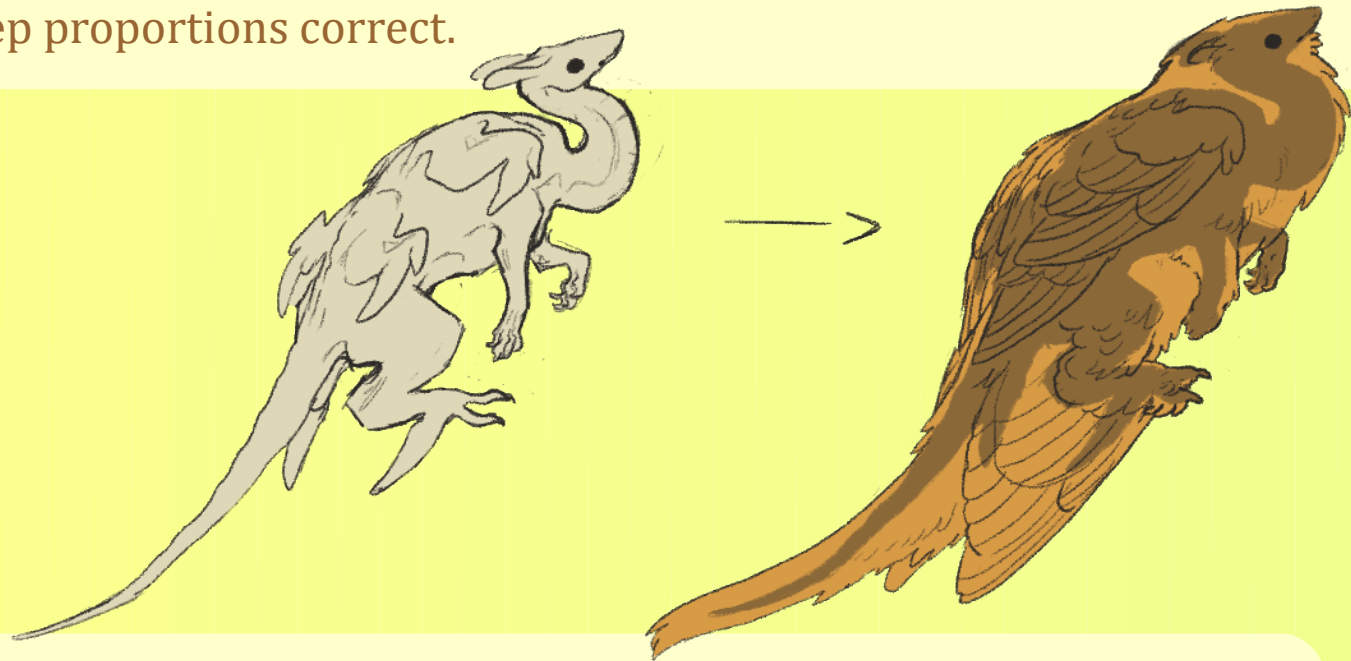
Also, consider how it interacts with your other creatures if you have some already ! Having a level of specificity (my thing 1 eats my thing 2) will help integrate it into the world more than a vague « it's a carnivore ». Designing the ecosystem is just the logical next step in creature design, when you think about it. Think of other levels of interaction than « x eats x », too ! Mutualistic relationships, parasites, gall-making insects, animals that use a particular plant for their nest material, seeds that are spread by animals, competition between species for the same food, etc...

Textures

When I say textures, I mean fur, feathers, scales, spikes... All those things an animal can have on its skin.

With these, I find it interesting to always have a variety of them in a single design. A creature with fur could have longer fur on its back than on its legs, and a wet nose and eyes.

When it comes to things such as fur and feathers, it's important to remember they have volume and can drastically change the outer shape of the animal. This is why a sketch of the anatomy before putting on the fluff is helpful to keep proportions correct.



Textures should also follow the form and aid in interpreting the 3D volume of your creature, even in a 2D drawing. You can make some guidelines in your sketch to gauge the form, or have your construction sketch be made of simple but 3D shapes (cubes, spheres...).

Textures – Examples : Sketch and line

The wide variety of textures an animal can have can look daunting to draw, but fear not, there's always some way to evoke the texture you're looking for in art.

Here's a couple examples to get you started, but experiment by trying to stylize photographed or real-life references or looking at how other artists have drawn them.



Short fur and whiskers can be represented with short, parallel lines that run along the edges of the form. This is great for bug fuzz as well.



Longer fur clumps together in strands, and is also more affected by gravity and wind. It's good to remember not to draw it too close to the body ; it has volume !



Scales can look difficult, but really it's just drawing a grid onto your form and then shading the points where the lines cross. You can do various types of scales with this method.



Feathers are similar to scales in that they overlap, but they have a lot more volume. Look at birds when they fluff up when it's cold to see how much they can change the silhouette !

Textures – Examples : Painterly

In general, when painting organic textures, my favourite way is to start with a darker base color and paint the texture on top of that. The dark color will nicely outline the fur, scales, or whatever I've drawn on top of it. I can also simply suggest the texture in a less complex way, by simply giving some hints of the shapes. I like to give them a slight outline to make it look « more finished », but that's mostly a stylistic choice.



Draw from the end of the shape to the front of it so that the fur overlaps well.



Here, I've first added the midtone, then the highlights, and then the darker outline. Then I went back and forth a little bit to refine the shapes.



Reflective/shiny surfaces have more dramatic shifts in value (how light or dark the color is)

Colors

The colors of animals can be quite complex and sometimes a little overwhelming to understand, and moreso to draw.

Try and separate the colors you see into « layers » when you think about them. What color is the most present ? This is your base color. Then come the subtle gradients in that color. Then, the more obvious shifts in value (a light underbelly, dark paws...). Then, the contrasting markings. Your process of breaking down the complex colors into steps can be different, but it's good to be able to see the different parts that make the whole.

When it comes to coloring my creatures, I find that adding subtle gradients, faint outlines on patterns, and other such things can really help give a design that extra sparkle.

Not necessarily color, but this is still related to appearance ; animals are often full of small « imperfections »/details. Scars, asymmetry, little discolorations and bald spots, greying fur, tattered wings...

This can be particularly useful to add to a design when drawing several individuals of the same species, as it can help differentiate them subtly.



Little red marks around the eyes/mouth on a white creature



Piebaldism and other odd color variations are sure to make an impression !

Colors – The why and how

When deciding on colors for your creature, ask yourself why it would need certain colors and not others. Is it a rarely-seen animal with colors that help it blend in really well with its environment ? Or on the contrary, does it have bright blue patches visible from miles ?

Consider how the color would interact with :

- Its environment (camouflage, protection from the sun...)
- Other species (warning colorations, mimicry...)
- Members of its species (sexually selected characteristics, communication)
- Itself (colors changing based on health or age...)

Choose what colors it has based on the lifestyle it has, basically.

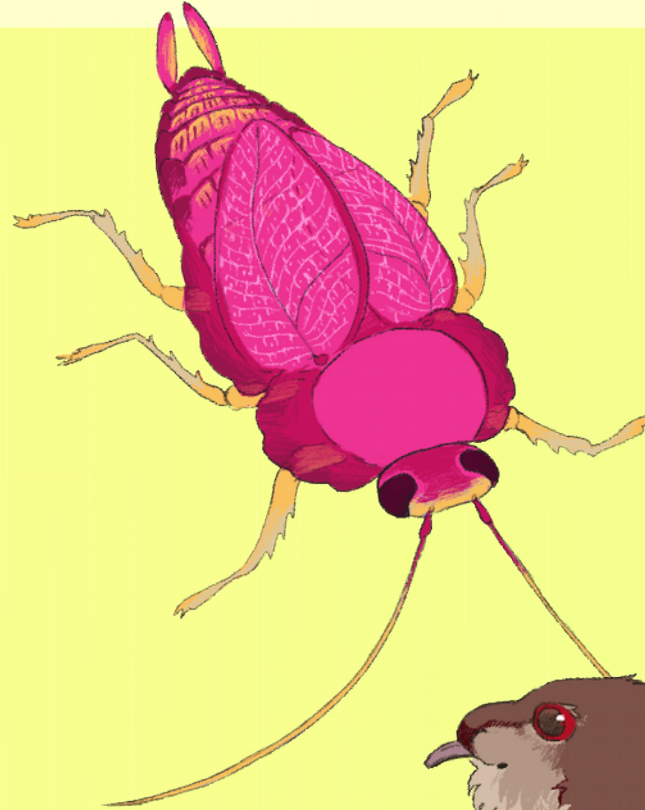
Also, if you want this creature to have some lore to it, you can think about *how* the color is here. While drawing is pretty straightforward, the way an animal acquires its colors is not always so.

For example : on a creature with fur, you can hint at it being thinner in places by making the skin color underneath slightly visible (example : a horse's nose). On one with iridescence, you can have it be revealed once they come into light (example : a magpie's feathers). Maybe one of your creatures gets its color from its diet (example : flamingoes). Or maybe the colored part is fragile and can be damaged (example : a moth's scales on its wings).

Colors – Examples 1

Here are some examples of types of coloration with one creature and one real animal photo !

Aposematism : a bright color to warn of toxicity. Applies to both poisonous and venomous species.

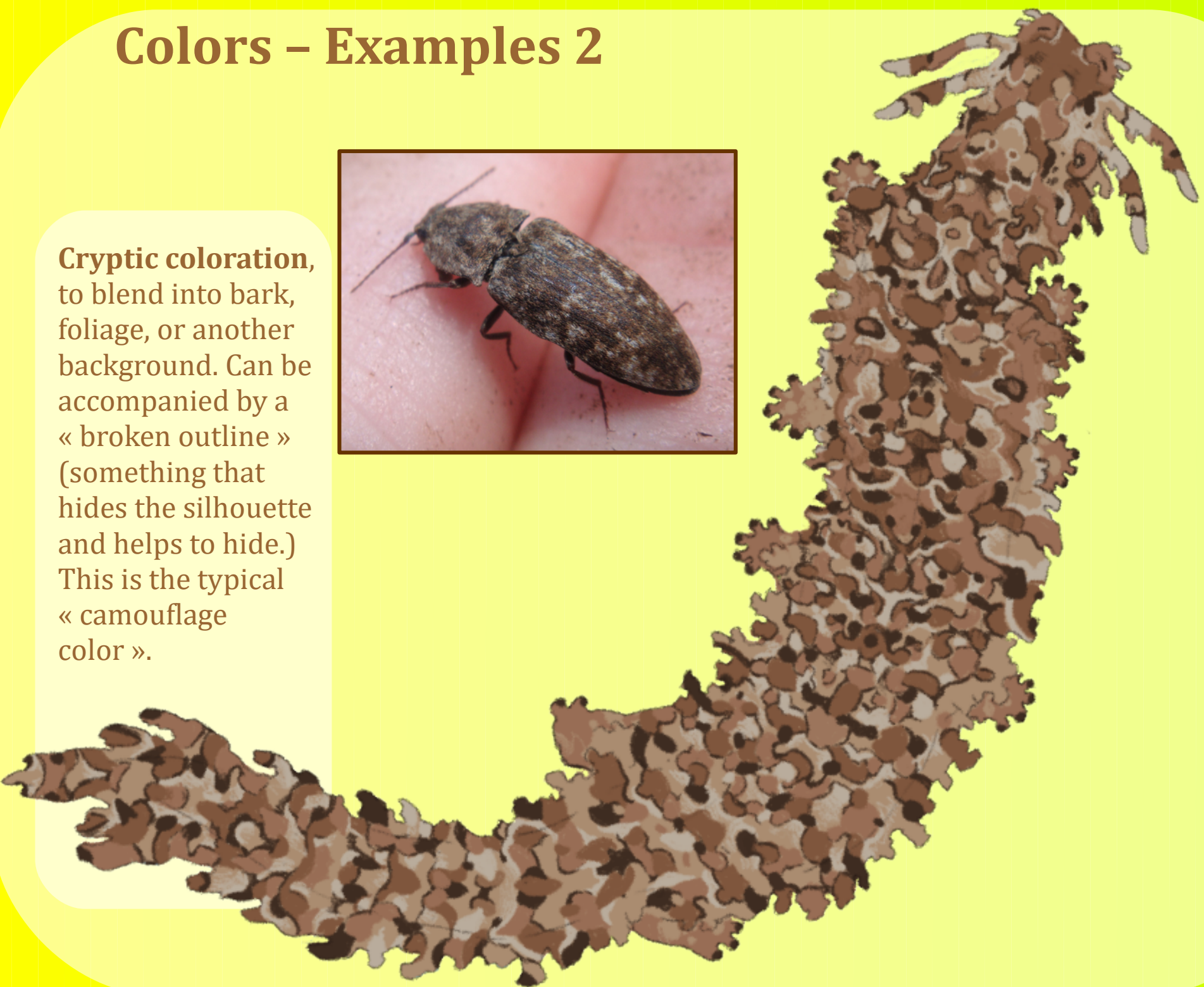


Countershading is when the underside is lighter. Can help blend in in open spaces. A lot of fish have this type of coloration.



Colors – Examples 2

Cryptic coloration, to blend into bark, foliage, or another background. Can be accompanied by a « broken outline » (something that hides the silhouette and helps to hide.) This is the typical « camouflage color ».



Colors – Examples 3

Eyespots can deter would-be predators. They may be initially hidden, and revealed in a flash while escaping to startle the pursuer.

Mimicry : an animal can imitate another's appearance, often in order to look more intimidating or less palatable. This can go hand in hand with aposematism.



Colors – Design Principles

A couple ideas about color in design that are useful to keep in mind.

60-30-10

Something that tends to look good is choosing just three colors, and sorting them into a « main », « secondary » and « accent » colors (so, 60%, 30%, and 10% of each).



Contrast

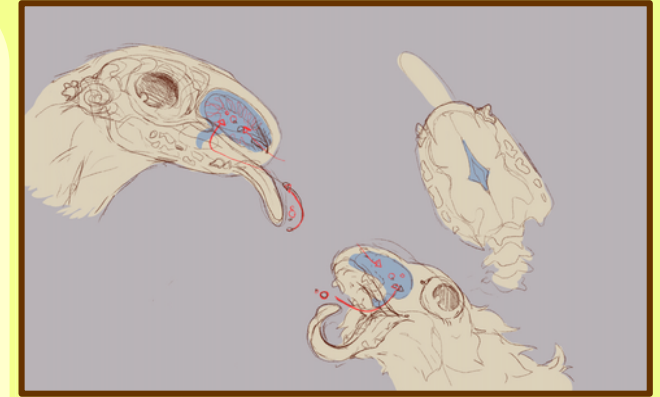
Contrast is super important in design ; but not just between black and white ! Play with different forms of contrast (grey vs saturated, areas of detail vs solid color blocks...) to direct the viewer's eye to the parts of the design you'd like them to see first.

Color relativity

Colors can look pretty different depending on the *other* colors around them. For example, a perfectly neutral gray will look blue next to orange. You can use this to your advantage to create more harmonious color palettes.

The insides

Thinking, at least a little bit, of how your creature works on the inside will really help you make a great design. Even if you don't detail every muscle attachment or nerve ending, knowing how it stores fat, or if it has multiple stomachs, or other such details that mostly don't appear in a standalone drawing will be some wonderful extra detail. It'll be especially useful to know this if you plan to write about your creatures !



How a blep smells with its tongue

Also, a note on fat (this one's going to mostly concern vertebrates) : I'm fairly sure that at this point, everyone has heard about the concept of « shrinkwrapping » in regards to reconstructions of extinct animals (especially non-avian dinosaurs). It's a good thing to keep in mind, so that you don't forget to give your creatures some chub and folds. Try and keep in mind whether the part you're drawing right now is muscle, fat, or closer to the bone, so you can draw its proper weight. It can help to draw the skeleton first (simplified) before adding the rest of the form ; it can act as your guidelines. An oval for the head, an oval for the ribcage, a flowing line for the spine... Having some knowledge of skeletons will help you with the overall anatomy. If you have a natural history museum near you, they should have lots of skeletons for you to study from !

Evidence of presence

When worldbuilding with creatures in mind, it's not all about seeing the creature itself. It'll have an impact on its environment ; pawprints in the mud, fur and feathers, shed scales, nests, sounds. Make your world feel alive by suggesting the creatures out of sight !

This can easily add some fun details if you're making something with a story like a comic or a set of illustrations, or even be plot-relevant ! After all, *something* had to have made those claw marks...

So take some time to think about and design this part too, even if it's not technically part of the creature itself.



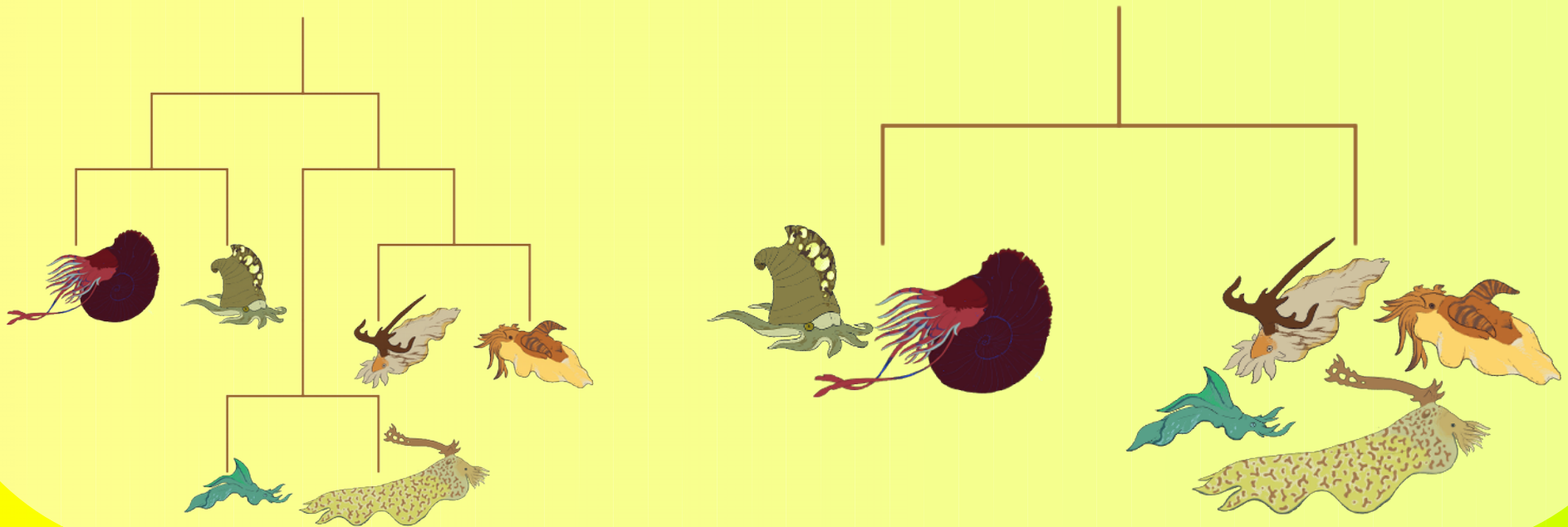
Coherence between designs

This one will only come into play if you're making several designs that should fit into the same universe.

Making up some general rules of what is and isn't possible in your world, even if they are broad and vibes-based, will still help you focus. It might feel weird to work within arbitrary constraints, especially if they are self-imposed, but limitations can boost creativity. You can always play with loopholes and figure out a way to make an out-there idea still work within your rules.

You can also do taxonomy, that is to say figure out how your various creatures are related to each other, which might show in the design and tie them together as belonging to the same world.

You could go as complex or as simple as you want for this. Do whichever feels best for you !



Traps and pitfalls

Some common mistakes in creature design. While everyone has their own taste and art style, these often happen because of poor research and/or a lack of aim.

« Overdesigning »

This refers to designs that have had details added on and on without rhyme or reason. Often seen with designs that want to be cool, that end up with a bunch of extra spikes, horns and claws. This often ends up making the design busy, making it hard to tell what's going on with the creature.

It's often the result of a lack of intentionality ; you don't really know what you're gunning for, so you add little elements until it looks right, but you just end up with a design that looks confused and messy.

A complex design with lots of details can absolutely work, as long as you know why you're adding those details.

A complex design can be balanced with a clear silhouette (so if your creature's shadow is still pretty recognizable, you can get away with more details in the colors, markings, stuff like that) or with an « area of rest », a part of the design that's more free of detail to contrast the rest. You could also use the design principles of « big-medium-small » or « 60-30-10 », having a variety in the size of the extra elements to avoid monotony.

Underestimating real-life weirdness

This is something that happens a lot when aiming to make « realistic » designs. You end up limiting yourself quite a lot by sticking to very conventional appearances, behaviours, ecological niches and abilities, even though life is way, way stranger than fiction.

This can happen because of looking at previously done fantasy creatures, and then removing the aspects deemed unrealistic, but not really adding anything new or unique.

To avoid this, instead of making, for example, « dragons but realistic », consider starting from scratch on the design. Even if the desired end result is something dragon-like ; ask yourself, what does that mean to you and your story ? Is it a large flying creature or a fire-themed adversary ? Find the core of why you wanted this sort of creature. Then, go through the phases of finding references, researching real animals, iterating, etc, until you have your final design. This should help you have a final design that's more unique and has more depth than just basing yourself on the « realistic version of » something.

Even outside of fantasy creature retellings, this often happens as the result of poor research ; if you base yourself only on the creatures you already know, you risk missing out on some cool feature that you haven't thought of, but still very much exists.

You can easily combat this by doing more reading and researching. Also, some of the most well-known and common organisms have really weird lifecycles ! Think back on things you probably already know ; amphibian metamorphosis, cephalopods changing colors, birds that can imitate noises... Every animal has something fun and weird to offer that can be played with in creature design.

Going along with clichés and tropes

Creature design, just like anything else, is full of tropes. And to be frank ? There's some I'm ready to let go of. Mostly the ones that are based in bad science, such as monster-like relentless predators that attack for no reason, « alpha wolf » type social behavior, hiveminds... It gets worse when the creature design is for sentient and humanoid species. Whether it be some weird « well everyone in this species is evil » thing or sexual dimorphism where men are monsters with big teeth and horns and women are sexy babes with green skin, if you're making a species that is supposed to act like people, it's time to leave some of this stuff behind.

Other than that, there's also clichés in the purely design/art side of things. Bad wing anatomy is surprisingly common, be it feathered, bat-like, or insect wings. Bug designs often cycle through butterflies, bees, rhinoceros beetles, centipedes, spiders and the occasional fly, and often have little care for actual bug anatomy. There's often stark difference in design of the « nice » and « mean » creatures, which, like, I get it's useful for narrative purposes... But also it's pretty lazy.

These are just a couple examples, but as you start observing the creature designs other people have made, you'll start seeing other things that seem to come up again and again. Just like with narrative tropes, it's not inherently a problem to use them, but be aware of what you're doing, don't just do something because you've seen everyone else do it too. All in all, consider this ; nature has so much to offer that you'll never be done learning. If you blindly go along with the flow, you'll miss out and make boring designs.

Serina

Examples from media

This is an online project that takes a « what-if » scenario (what if there was a planet with almost only birds) and goes as far as it can with it. It's very detailed, and is one of the biggest projects of speculative evolution out here.

[Click here](#) to check out Serina !

Scavenger's Reign

An animated series that takes place on an alien planet and has the various characters encounter beautiful, dangerous, and unexpected forms of life. It takes a more « vibes-based » approach to creature design, which fits its format well by keeping an air of mystery, while still having them remain coherent and feeling like part of the same world. Fair warning for body horror.

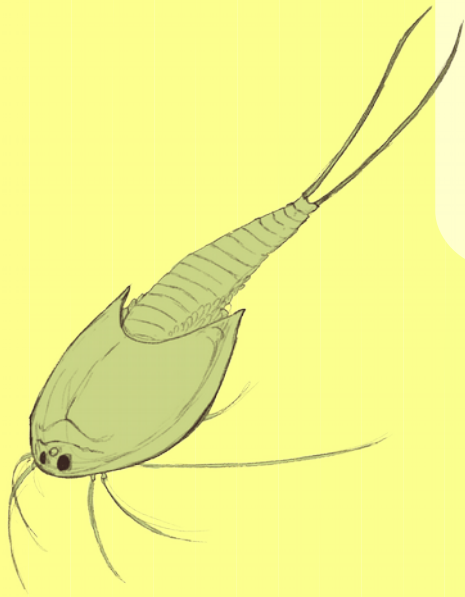
Dungeon Meshi

A manga(/anime) that takes classic folklore creatures (dragons, unicorns...) and imagines their potential ecology. Often mixes biology and magic !

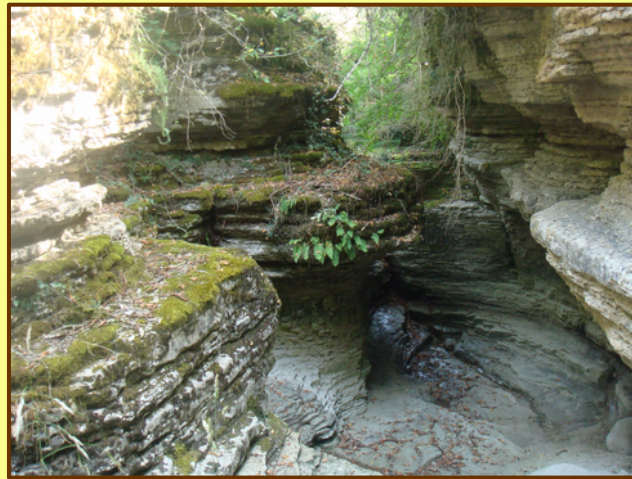
Step by step example

To wrap up, let's follow my process of making a creature using the tips in the zine, from beginning to end !

First, I choose my concept. This will be a creature that lives in and around small mountain streams that are dry for part of the year. It will be an arthropod.



Now comes the research part. I looked up riparian zones, the genus *Triops*, and a few other related Wikipedia articles. I read a book about european river ecosystems, and I also reviewed the photos I took when visiting a dry stream bed last year. And I took a look at some Cambrian explosion animals, since those are aquatic.



I like the idea of the caves along the riverbed carved by the rapid currents when the water flows again with the rainy season. I definitely want the creature and this ecosystem feature to interact closely. Them experiencing diapause or another dormant state is also an interesting possibility to give them.



Then, I sketch out a few possibilities, both in form (are they more of an insect, or a myriapod, or a crustacean...) and in behavior (are they more active in the dry or rainy season, etc).



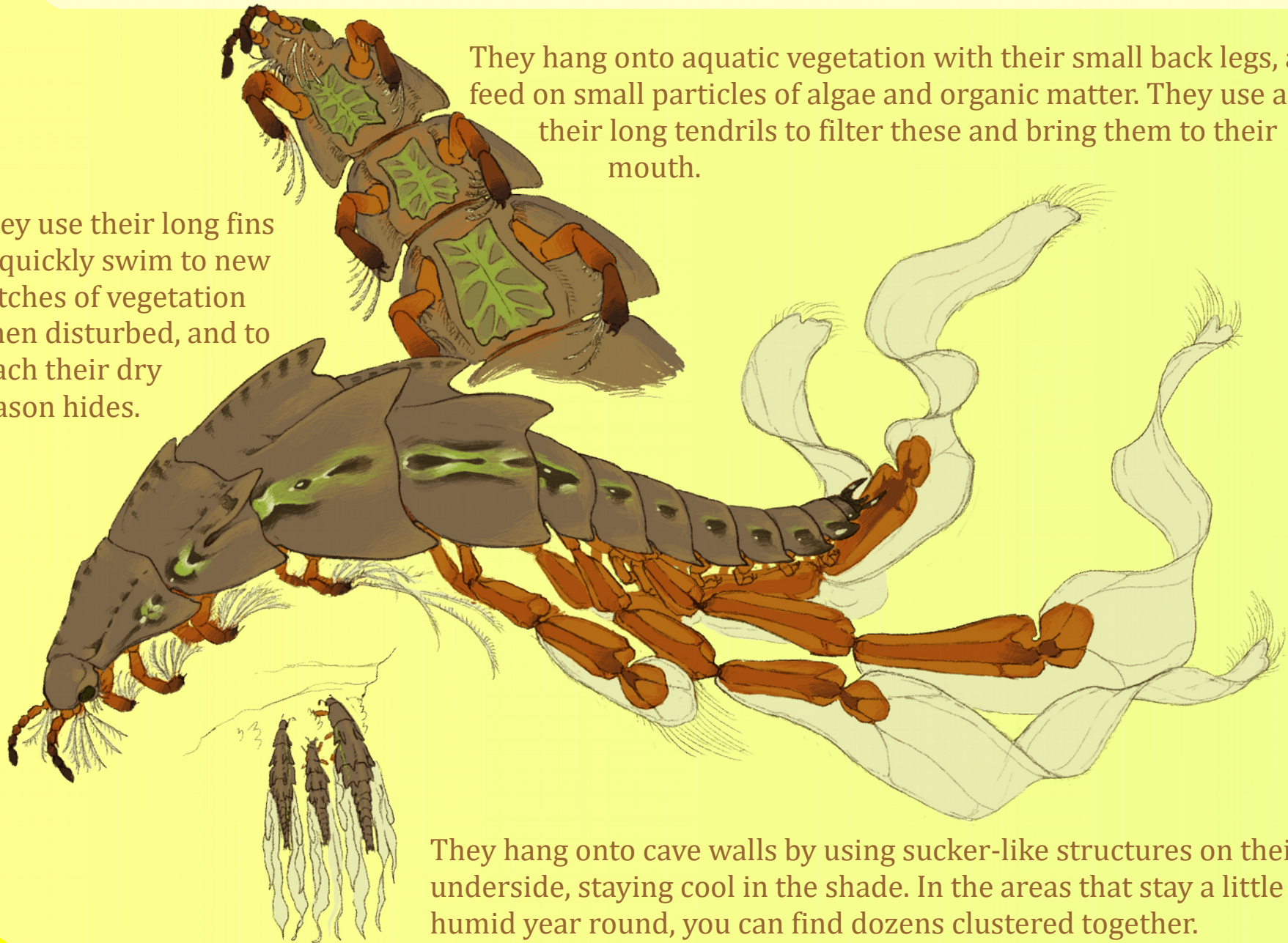
I've chosen a few sketches which I liked the most and did another pass, combining my favorite ideas, and settled on a final rough design.



Finally, I redraw it more cleanly. I reference specific things for anatomy and some final ideas of the details (flat backed millipedes for texture of the back, barnacle cirri for the legs, fairyfly wings and feathertail centipedes for the fins)

They hang onto aquatic vegetation with their small back legs, and feed on small particles of algae and organic matter. They use all their long tendrils to filter these and bring them to their mouth.

They use their long fins to quickly swim to new patches of vegetation when disturbed, and to reach their dry season hides.



They hang onto cave walls by using sucker-like structures on their underside, staying cool in the shade. In the areas that stay a little humid year round, you can find dozens clustered together.

Closing thoughts

And that's about what I had to say ! I love creature design, and if you're still here, that means you do too, so I hope this was helpful to you !

If you want to see more of my own creature designs, you can visit my blog, [wanderingokali](http://wanderingokali.com), or play my [video games](#).

And now that you're done reading... Go draw some beasts !!

